IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Eric Finzi
Application No. 10/773,785
Filed: February 6, 2004
Confirmation No. 7913
For: METHOD FOR TREATING DEPRESSION
Examiner: Vanessa L. Ford
Art Unit: 2856
Attorney Reference No. 6863-67727-01

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COMMISSIONER FOR PATENTS

DECLARATION OF DR. ERIC FINZI UNDER 37 C.F.R. 1.132

1. I, Eric Finzi, M.D. Ph.D., am an inventor of the above-referenced application.

2. It is my understanding that claims 1, 5-8 and 23-24 are rejected under 35 U.S.C. § 112, first paragraph as allegedly the specification is not enabling for treating major depression or dysthymia in any subject, wherein the method includes selecting any subject diagnosed with a disorder consisting of major depression or dysthymia using specific clinical criteria for major depression or dysthymia, and administering to the subject 30 to 50 unit equivalents of a Botulinum toxin to a corrugator supercilii and/or procerus muscle to cause paralysis of the corrugator supercilii or the procerus muscle, wherein the subject is also treated with a therapeutically effective amount of a selective serotonin reuptake inhibitor (SSRI). The Office action acknowledges that the specification is enabling for these methods in subjects that have frown and glabellar lines. The Office action alleges that, although the level of skill of those in the art is high, as the art can be unpredictable. Thus, although the Office action confirms that the claimed methods are enabled for subjects with frown and glabellar lines, the Office action alleges that the specification does not enable the methods in subject that do not have frown and/or glabellar lines.

The specification provides descriptive support for a subject diagnosed with a disorder consisting of major depression or dysthymia using specific clinical criteria for major depression or dysthymia, and administering to the subject 30 to 50 unit equivalents of a Botulinum toxin to a corrugator supercilii or procerus muscle to cause paralysis of the corrugator supercilii or the procerus muscle, wherein the subject is also treated with a therapeutically effective amount of a selective serotonin reuptake inhibitor (SSRI). Experimental results are presented in the specification document the effectiveness of the claimed methods. However, the Office action alleges that since the

experimental results were obtained in treatment of subjects with frown/glabellar lines, that the specification is enabling only for those subjects with frown/glabellar lines.

3. Additional patients were treated using the method disclosed in the specification and presently claimed. These patients were diagnosed with major depression or intermittent anxiety/depression. Botulinum toxin was administered to the corrugator supercilii and the procerus muscle of each of these subjects using the claimed methods, and patients were taking an SSRI. None of these patients had frown or glabellar lines. Following treatment, these subjects all reported improvements in their mood. Results for two patients treated with the claimed methods are presented below (see points 4 and 5). Results achieved in a third patient, who was not treated with SSRIs are also presented below (see point 6). This is presented to document that the results achieved in the case study reported by Brenner (Southern Medical Journal 92: 738, 1999) are different from those achieved with the claimed methods.

4. A 63 year old female with a history of depression for 10 years was diagnosed with a disorder consisting of major depression or dysthymia using specific clinical criteria for major depression or dysthymia. Specifically, her pretreatment BDI-II score was 21. This woman did not have frown or glabellar lines at the time of treatment, although her face did show the normal aging and creases of a 63 year old, which included some wrinkles around the eyes and forehead. Following selection, about 30 unit equivalents of Botulinum toxin was administered to the corrugator supercilii and the procerus muscle to cause paralysis of the corrugator supercilii and the procerus muscle. She was also taking Buproprion at the time of Botox injection (she had been taking this medication for four years). Her pretreatment BDI-II score was 21 when this photograph presented in attached FIG. 1 was taken.

Her ability to frown was decreased following treatment. In addition, her depression was treated using the claimed methods. Her BDI-II score was 4 following treatment using the claimed methods. She did not have any adverse side effects.

5. A 44 year old female with a history of depression for two years was also treated using the claimed methods. She was diagnosed with a psychiatric disorder consisting of major depression. Her BDI-II score prior to treatment was 28. This woman did not have frown or glabellar lines, as shown in attached FIG. 2

Following selection, about 30 unit equivalents of botulinum toxin was administered to the corrugator supercilii and procerus muscles to cause paralysis of the corrugator supercilii and the

procerus muscle. She also took fluoxetine (and had been taking it for two years). Her ability to frown was decreased following treatment. In addition, her depression was treated using the claimed methods. Two months after treatment, her BDI-II score was 7. She did not have any adverse side effects.

6. The methods by Brenner are very different than the treatment methods claimed in the present application. Brenner describes the administration of botulinum toxin for cosmetic purposes to forehead rhytides. Thus, it is highly likely that this administration was to the frontalis muscle (although it is not specified in the article). The subject treated by Brenner was "satisfied with her work and home situation" and "was not taking any medications." Thus, Brenner did not select a subject diagnosed with a disorder consisting of major depression or dysthymia using specific clinical criteria for major depression or dysthymia, and it is likely that Brenner did not administer botulinum toxin to a corrugator supercilii and/or procerus muscle to cause paralysis of the corrugator supercilii and/or the procerus muscle. Thus, the disclosure of Brenner does not negate the predictability of the claimed methods.

The following case study can be used to compare the effects achieved with the presently claimed methods when compared to the subject without a psychiatric disorder, as described in Brenner. A 38 year old female with a history of depression was selected for treatment with botulinum toxin. She was diagnosed with a psychiatric disorder consisting of major depression. Her BDI-II score prior to treatment was 31. This woman did not have frown lines or glabellar lines at the time of treatment, as shown in attached FIG. 3.

Following selection, about 30 unit equivalents of Botulinum toxin was administered to the corrugator supercilii and procerus muscle to cause paralysis of the corrugator supercilii and the procerus muscle. She did not receive SSRIs. Her ability to frown was decreased following treatment. Two months after treatment, her BDI-II score was 2. She did not have any adverse side effects from the treatment. This provides evidence that a subject with major depression who is treated with botulinum toxin to a corrugator supercilii amd/or procerus muscle to cause paralysis of the corrugator supercilii and/or the procerus muscle, would not experience the adverse effect described by Brenner.

7. Thus, subjects without glabellar and/or frown lines were successfully treated using the methods described and claimed in the above-referenced specification. The claimed methods are fully enabled by the specification. The administration of Botulinum

toxin to a subject with a psychiatric disorder consisting of major depression did not result in adverse side effects.

8. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Eric Finzi, M.D., Ph.D.

11/18/09
Date

FIG. 1

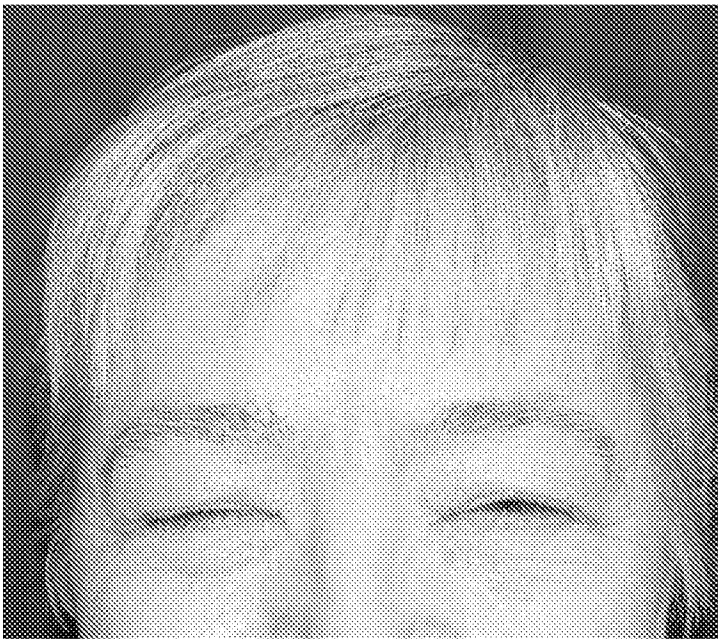

FIG. 2

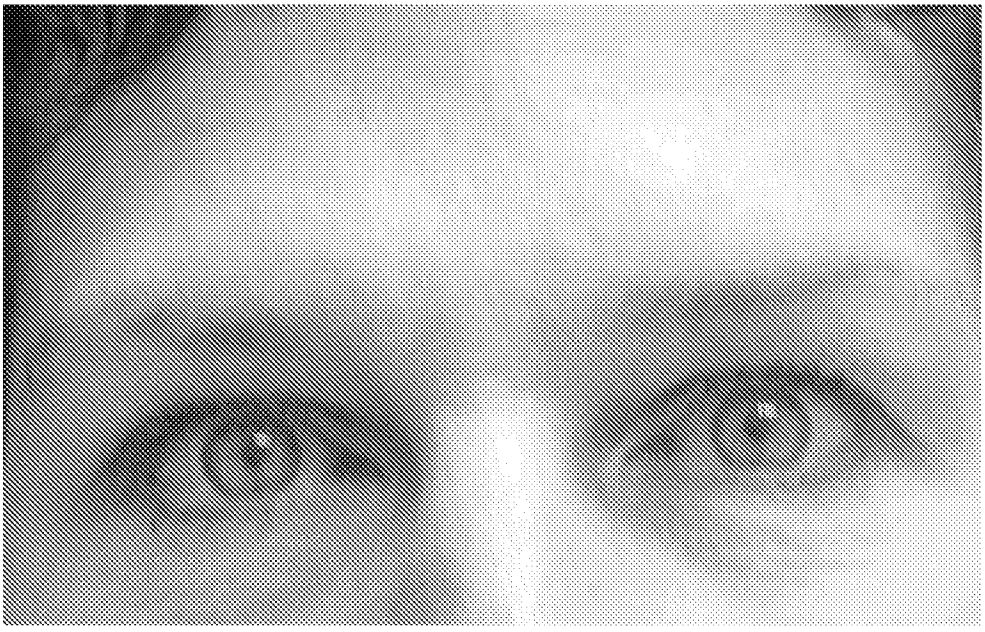

FIG. 3